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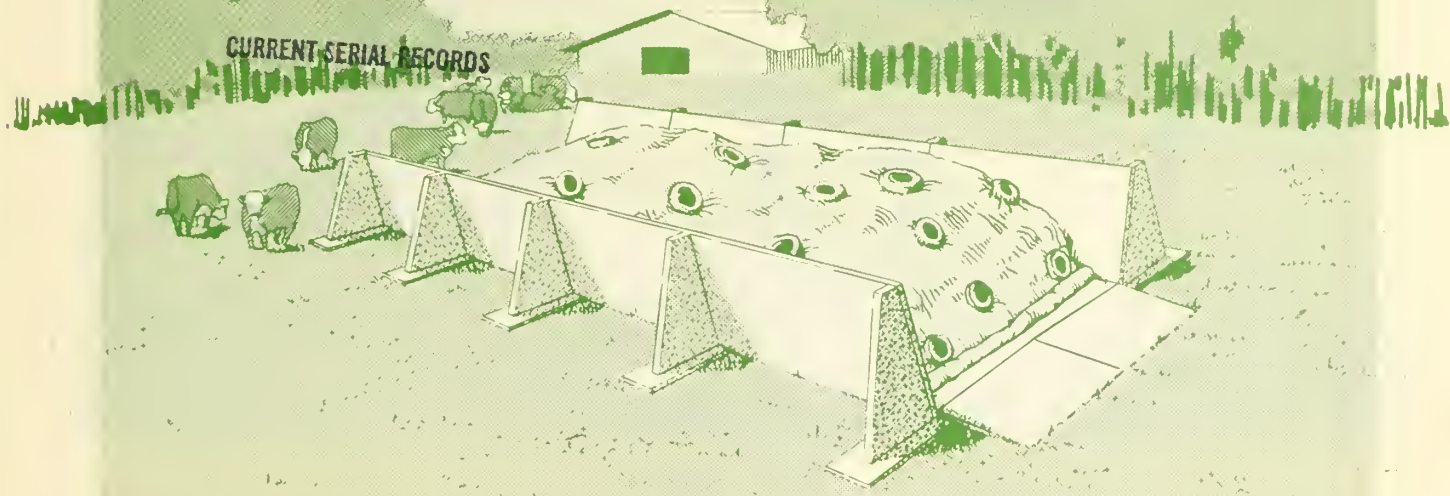
# Horizontal Silo, Tilt-up Construction



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CURRENT SERIAL RECORDS



Horizontal silos provide inexpensive storage for silage and are well suited to the use of mobile power equipment for loading and unloading.

This reinforced concrete silo was designed at the University of Nebraska and features the use of tilt-up construction. The concrete floor slab is first cast in place, and the wall panels and buttresses are cast flat in simple edge forms on top of it. When the concrete has cured, the forms are removed, and the components are raised and secured in their final tilted positions. Many rural builders are experienced in using the tilt-up construction methods.

This silo is intended primarily for storage because the walls are higher than is generally considered desirable for a silo that is also to be used for the self-feeding of cattle. The working drawings cover the construction of

three wall panel heights—10, 12, and 14 feet—and buttresses for each size. Wide silos are less expensive than narrow silos of the same capacity as it costs less to increase width of slab than to construct wall panels. The silo width usually depends on the number of animals to be fed. To prevent feed spoilage, it is necessary to use at least a 4- to 6-inch slice of feed from the

Working drawings may be obtained from the extension agricultural engineer at your State university. There may be a small charge to cover cost of printing.

If you do not know the location of your State university, send your request to Agricultural Engineer, Federal Extension Service, U.S. Department of Agriculture, Washington, D.C. 20250. He will forward your request to the correct university.

ORDER PLAN 6055, HORIZONTAL SILO  
Tilt-up construction

Washington, D.C.

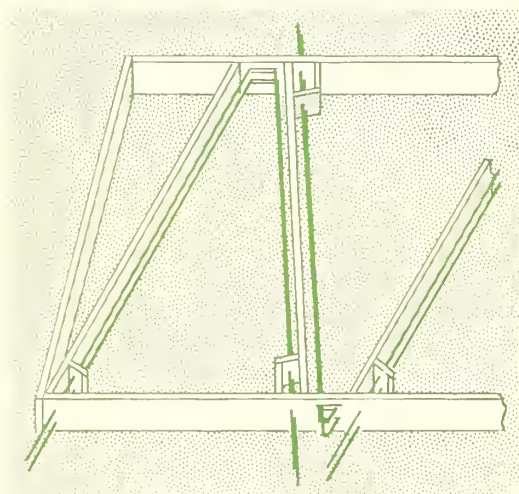
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**PLACING PANELS**



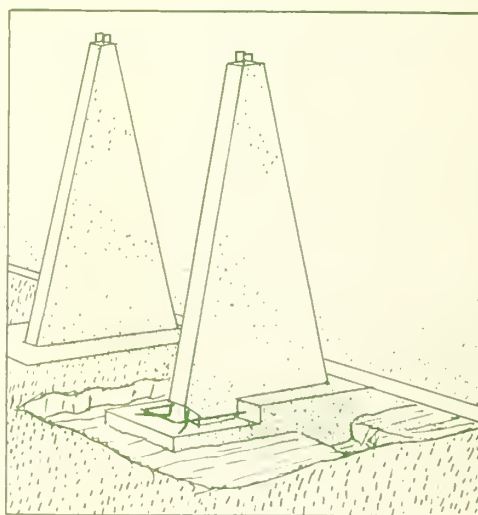
**FORMS FOR BUTTRESS**

exposed face of the stack each day. Also, to insure adequate packing of the silage, any horizontal silo must be at least twice as wide as the tractor that will be used for this purpose. The silo length may be varied in multiples of the 8-foot buttress spacing.

Well-packed and settled silage weighs about 40 pounds per cubic foot, so silo capacity desired should be based on about 50 cubic feet per ton of silage. The

slope at the ends of the stack permits passage for the vehicles used in filling and packing the silo.

A crane will be needed to erect the walls and buttresses of this silo. If 10-foot sidewall panels are to be used, the buttresses (3,700 lb. each) are the heaviest components. The 12- or 14-foot panels weigh 6,100 and 7,200 pounds, respectively.



**FOOTING AND BUTTRESS**





